	Application No.	Applicant(s)
Notice of Allowability	09/941,223	HAMID ASAYESH
	Examiner	Art Unit	
	Nguyen Ngo	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *4/28/2005*.

2. ☒ The allowed claim(s) is/are *1-24*.

3. ☒ The drawings filed on *28 August 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1.   Claims 1-24 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

2.   Claim 1 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **dynamically establishing the GRE tunnel with the set of endpoints and the key between the first network element and a second network element, the second network element being identified by the set of endpoints.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a tunnel by determining whether a security agent of a received packet corresponds to the source agent that sent the packet. However, Walker et al. fails to disclose or render obvious to the above underline limitations as claimed.

3.   Claim 8 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **a first network element to determine a key and a first set of endpoints for a GRE tunnel, the key corresponding to a VPN, to determine a second set of endpoints for the GRE VPN based on the first set of endpoints and the key, to configure an initiation point of the GRE tunnel based on the first and second set of endpoints.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a

tunnel by determining whether a security agent of a received packet corresponds to the source agent that sent the packet. However, Walker et al. fails to disclose or render obvious to the above underline limitations as claimed.

4.   Claim 12 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **the forwarding engine to establish an initiation point of the GRE tunnel using the first and second sets of endpoints and to transmit a set of traffic over the GRE VPN with a termination point of the GRE tunnel over a network of a network provider.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a tunnel by determining whether a security agent of a received packet corresponds to the source agent that sent the packet. However, Walker et al. fails to disclose or render obvious to the above underline limitations as claimed.

5.   Claim 15 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **an input/output module to receive a set of data from a network element over a network, the set of data indicating a key and a first of set of endpoints of a GRE tunnel, the key corresponding to a VPN.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a tunnel by determining whether a security agent of a received packet corresponds to the source agent that sent the

packet. However, Walker et al. fails to disclose or render obvious to the above underline limitations as claimed.

6.   Claim 18 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **retrieving a first set of endpoints of a GRE tunnel based on a name of the GRE tunnel in response to a request for establishing the GRE tunnel, the first set of endpoints identifying a termination point of the GRE tunnel.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a tunnel by determining whether a security agent of a received packet corresponds to the source agent that sent the packet. However, Walker et al. fails to disclose or render obvious to the above underline limitations as claimed.

7.   Claim 21 is are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **in response to the packet received from a network element over a network, retrieving a second set of endpoints for the VPN with the first set of endpoints and the key; establishing the GRE tunnel with the network element over the network using the first set of endpoints and the second set of endpoints.** It is noted that the closest prior art, Walker et al. (US 2002/0163920) shows a method for performing network routing, which authenticates received packets sent from a source agent to an endpoint of a tunnel by

determining whether a security agent of a received packet corresponds to the source agent

that sent the packet. However, Walker et al. fails to disclose or render obvious to the

above underline limitations as claimed.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

   a) Walker et al. (U.S 2002/0163920) Method and Apparatus For Provisioning

Network Security.

   b) Sakamoto et al. (U.S 6,633,571) VPN Composing Method, Interwork Router,

Packet Communication Apparatus, and Packet Relaying Apparatus.

   c) Halme et al. (U.S 2002/0097724) Processing Of Data Packets Within A

Network Element Custer.

   d) Gaddis et al. (U.S 2002/0069292) Method and System For Sending

Information on An Extranet.

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***

N.N.

Nguyen Ngo
United States Patent & Trademark Office
Patent Examiner AU 2663
(571) 272-8398

RICKY NGO
PRIMARY EXAMINER

6/13/05